

**tobacconomics**

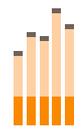
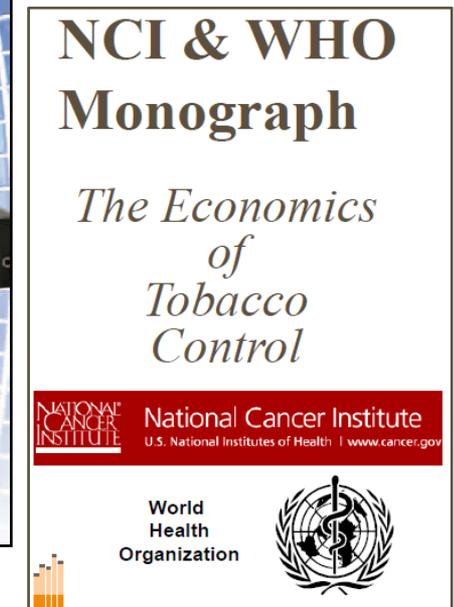
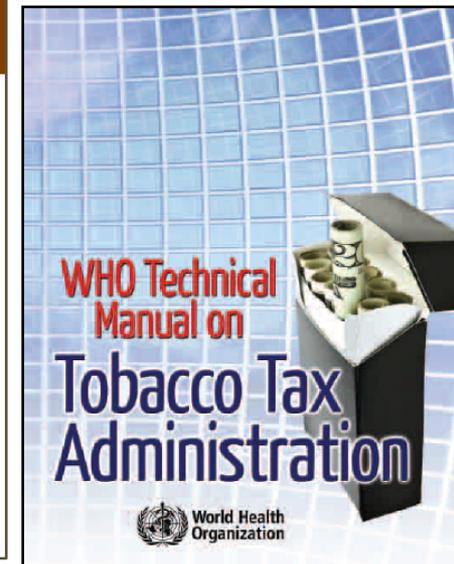
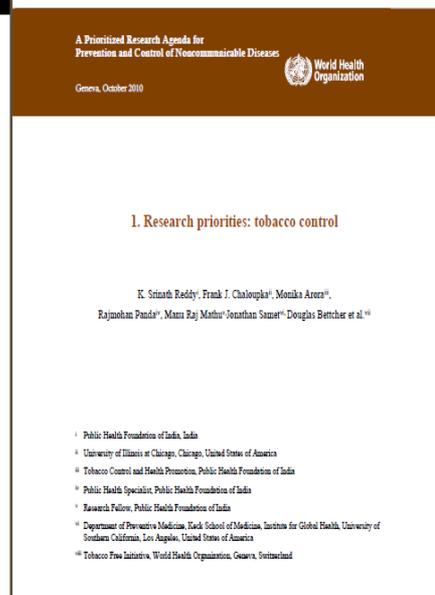
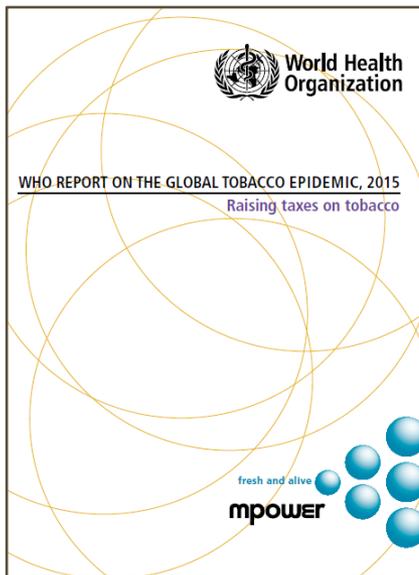
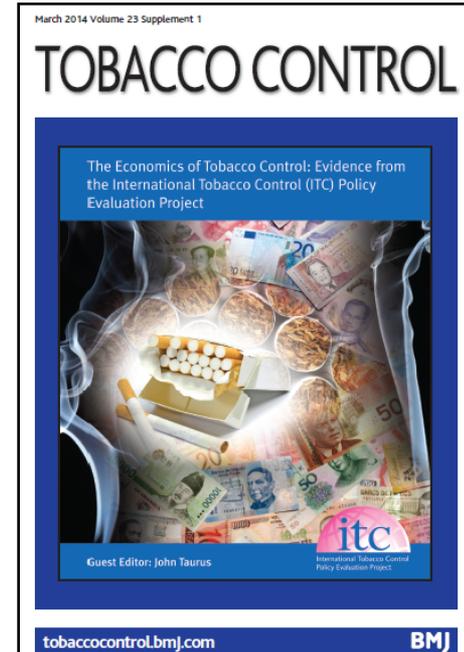
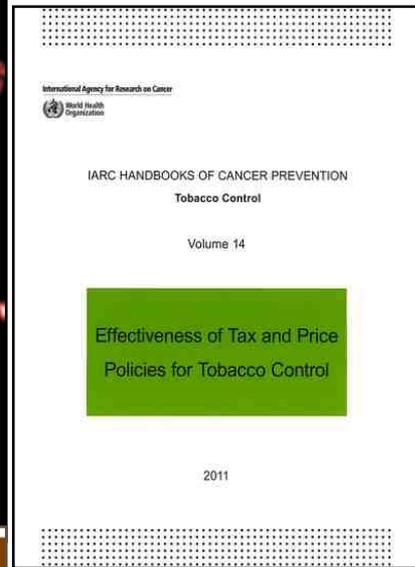
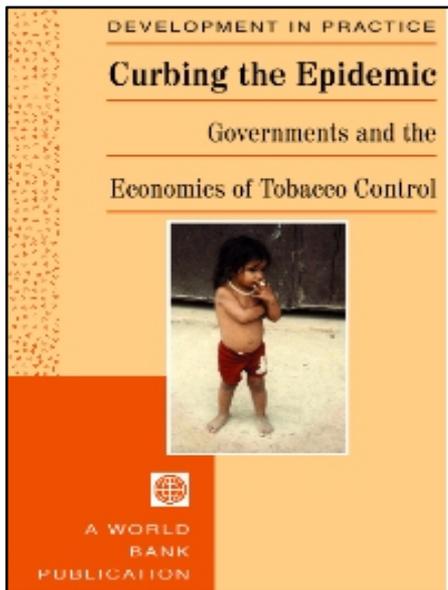
Economic Research Informing Tobacco Control Policy

# The Economics of Smoking: Dispelling the Myths

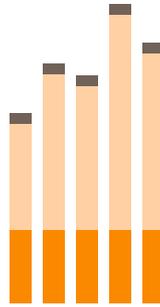
Frank J. Chaloupka, University of Illinois at Chicago

Summit on Creation of a Tobacco Endgame for Canada

Kingston, Ontario, Canada, 30 September – 1 October, 2016



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# Tax, Price & Tobacco Use

# Tobacco Taxation

“... We [] have a package of six policy measures, known as MPOWER, that can help countries implement the provisions in the Convention. All six measures have a proven ability to reduce tobacco use in any resource setting. ***But tobacco taxes are by far the most effective.***”

Director General Dr. Margaret Chan, WHO, 2008



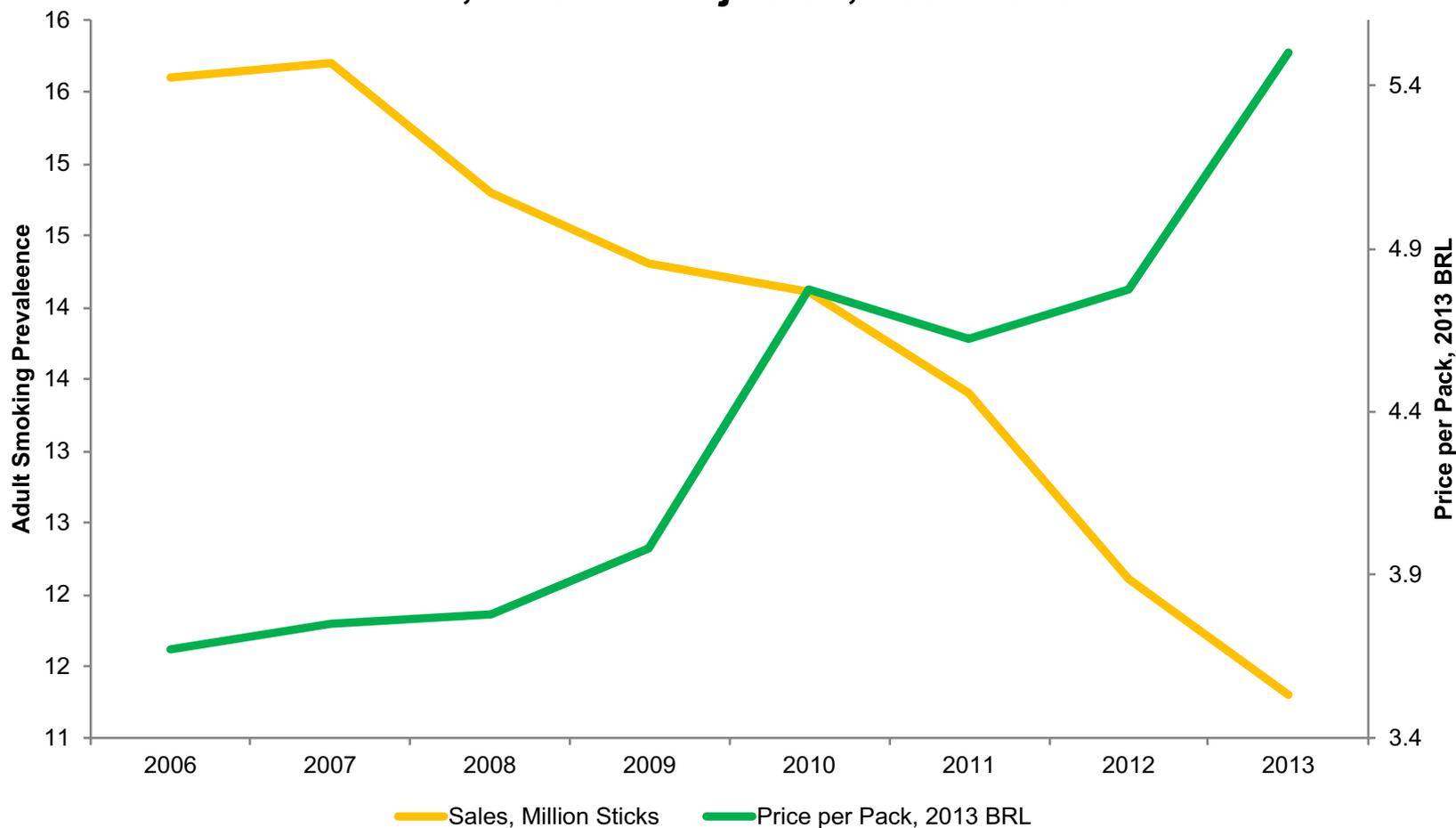
# Cigarette Price & Consumption

## Hungary, 1990-2011, Inflation Adjusted

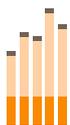


# Adult Prevalence & Price, Brazil

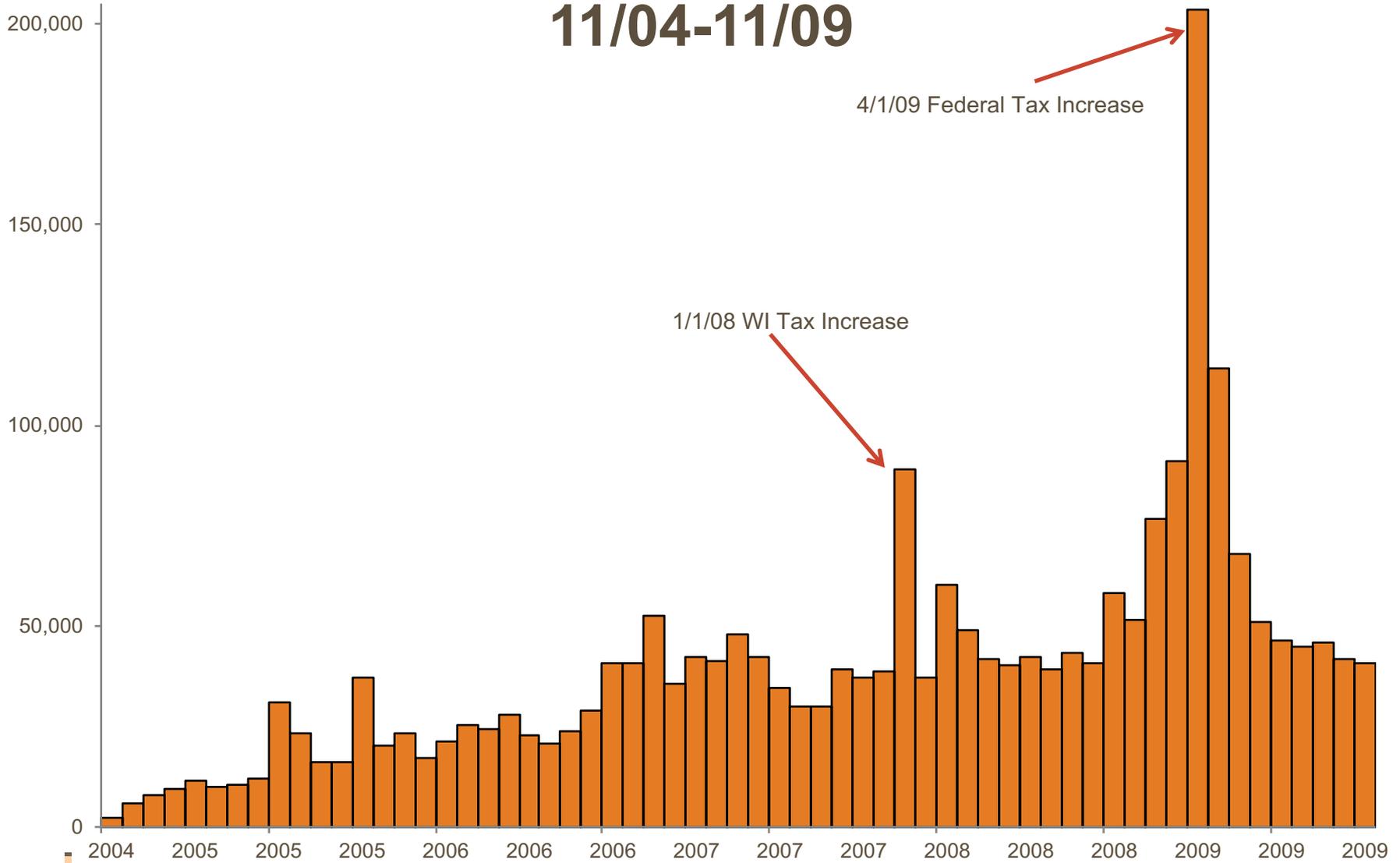
## Adult Smoking Prevalence and Cigarette Price Brazil, Inflation Adjusted, 2006-2013



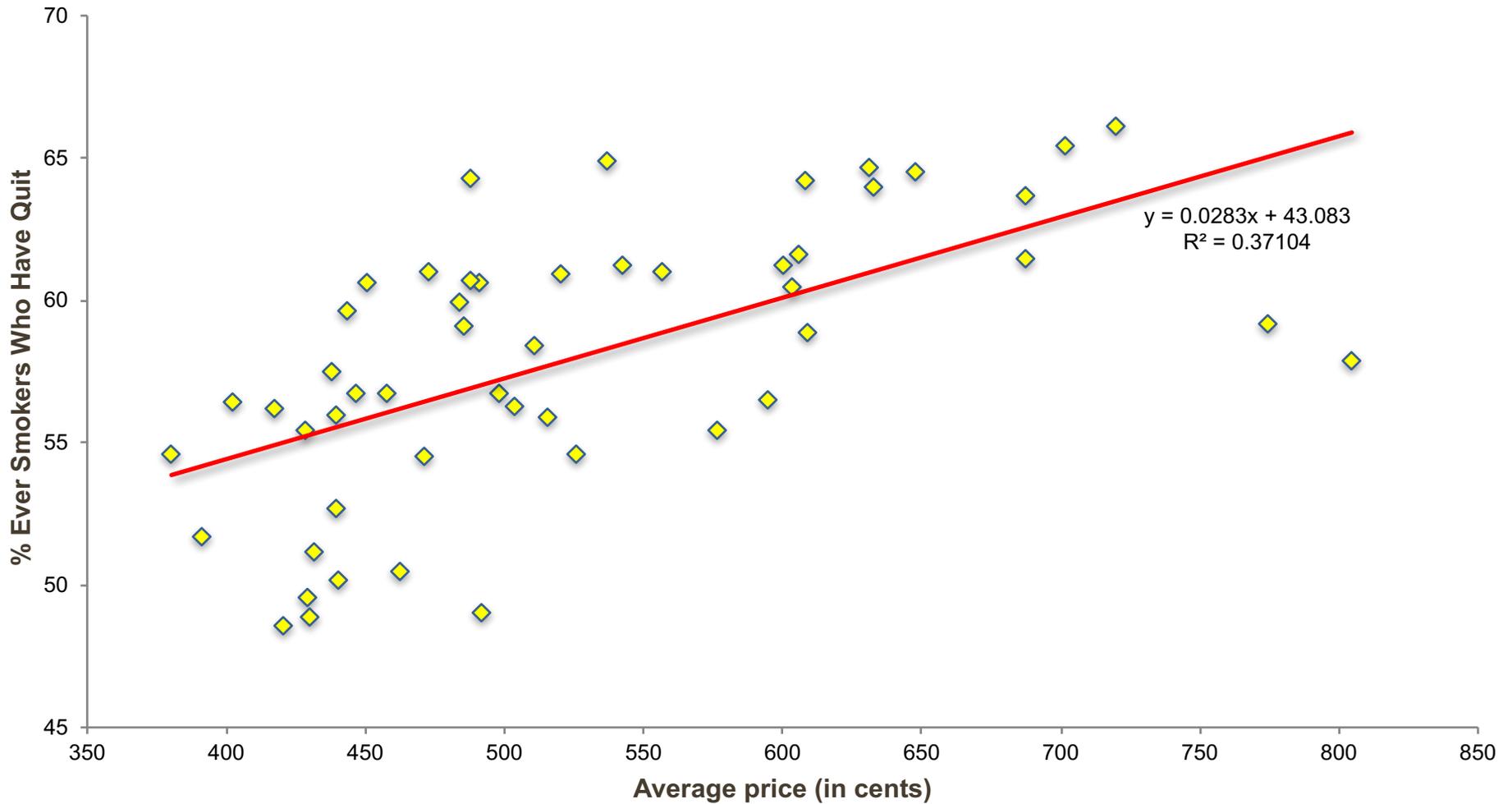
Sources: Ministry of Health, Brazil; EIU; World Bank



# Monthly Quit Line Calls, United States 11/04-11/09

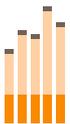


# Cigarette Prices and Cessation US States & DC, 2009

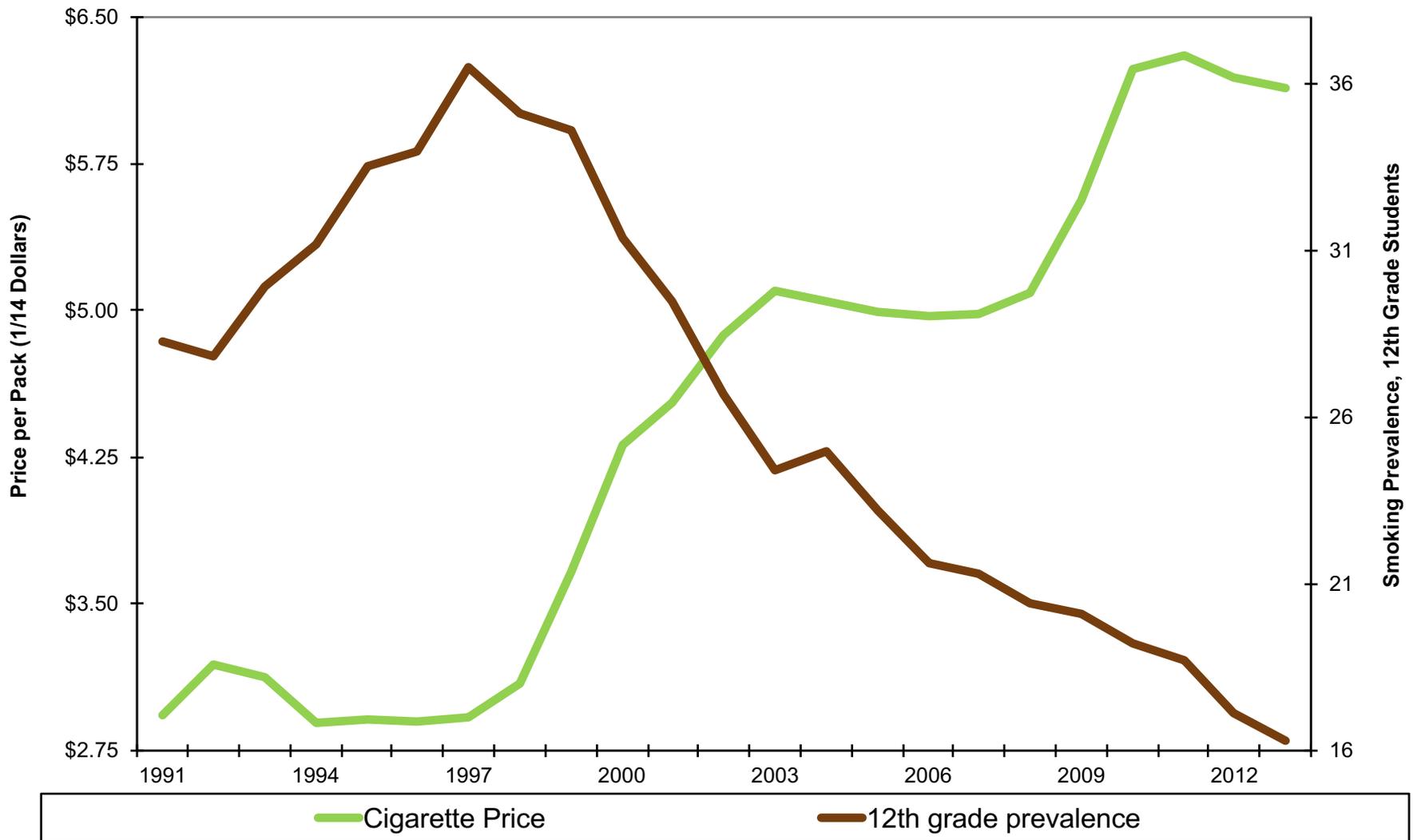


Source: BRFSS, *Tax Burden on Tobacco*, 2010, and author's calculations

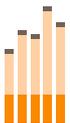
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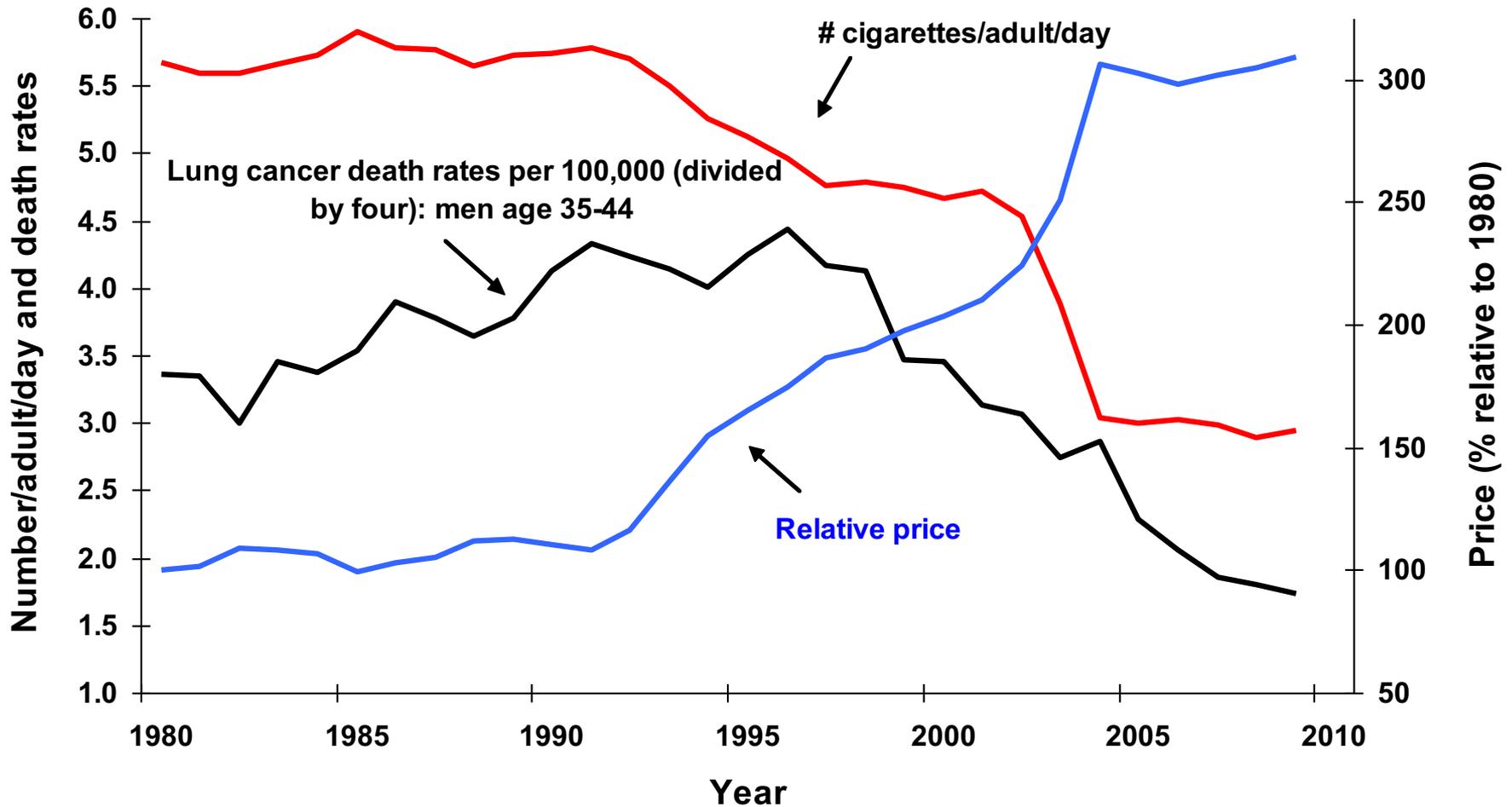
# Cigarette Price & Youth Smoking Prevalence High School Seniors, United States, 1991-2013



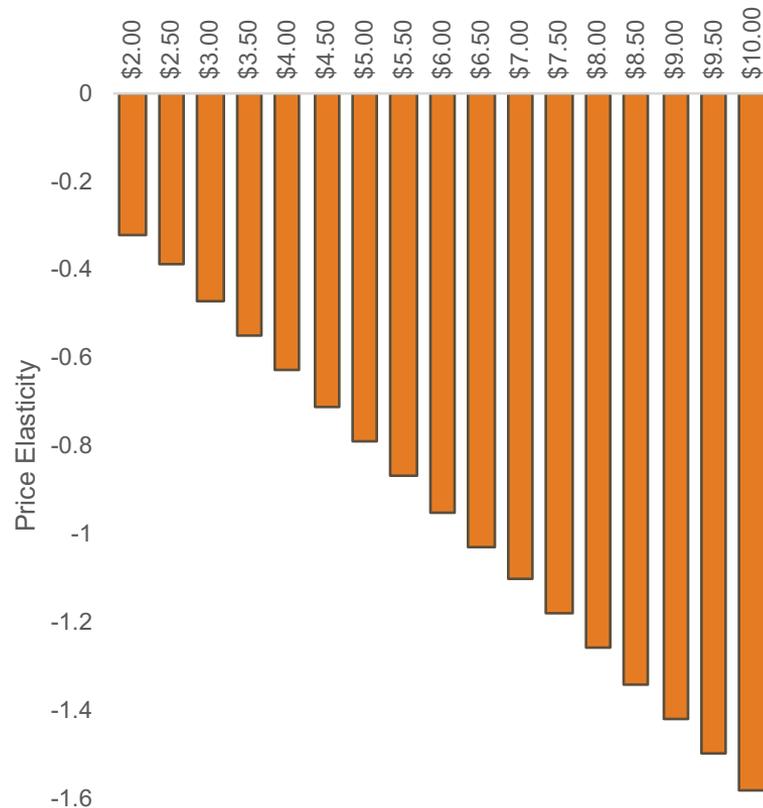
Sources: *Tax Burden on Tobacco*, BLS, MTF, and author's calculations



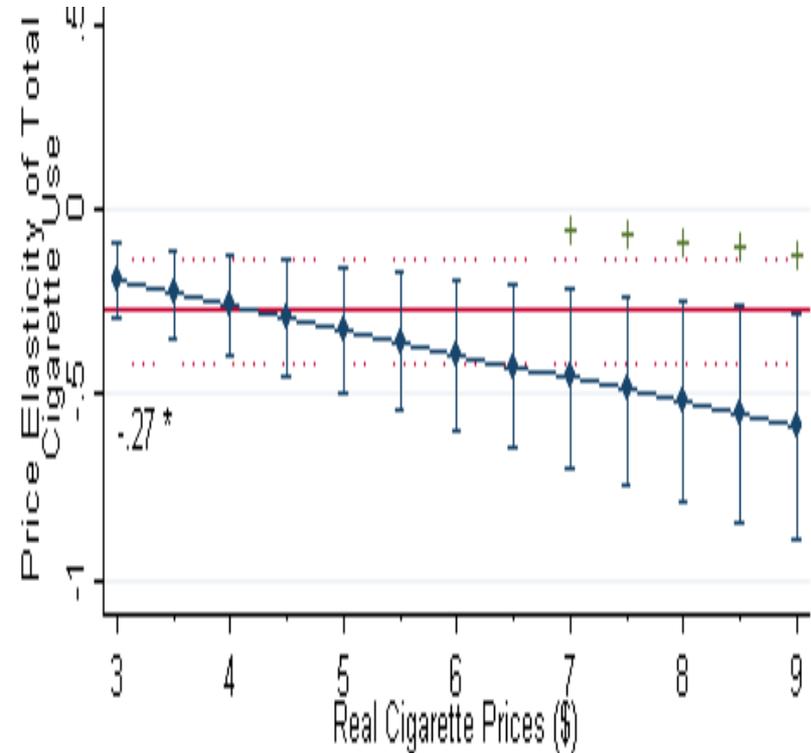
# Price, Consumption & Lung Cancer, France



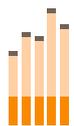
# Increasing Elasticity with Increasing Price



State tax-paid sales  
Tauras, et al., 2016

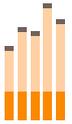
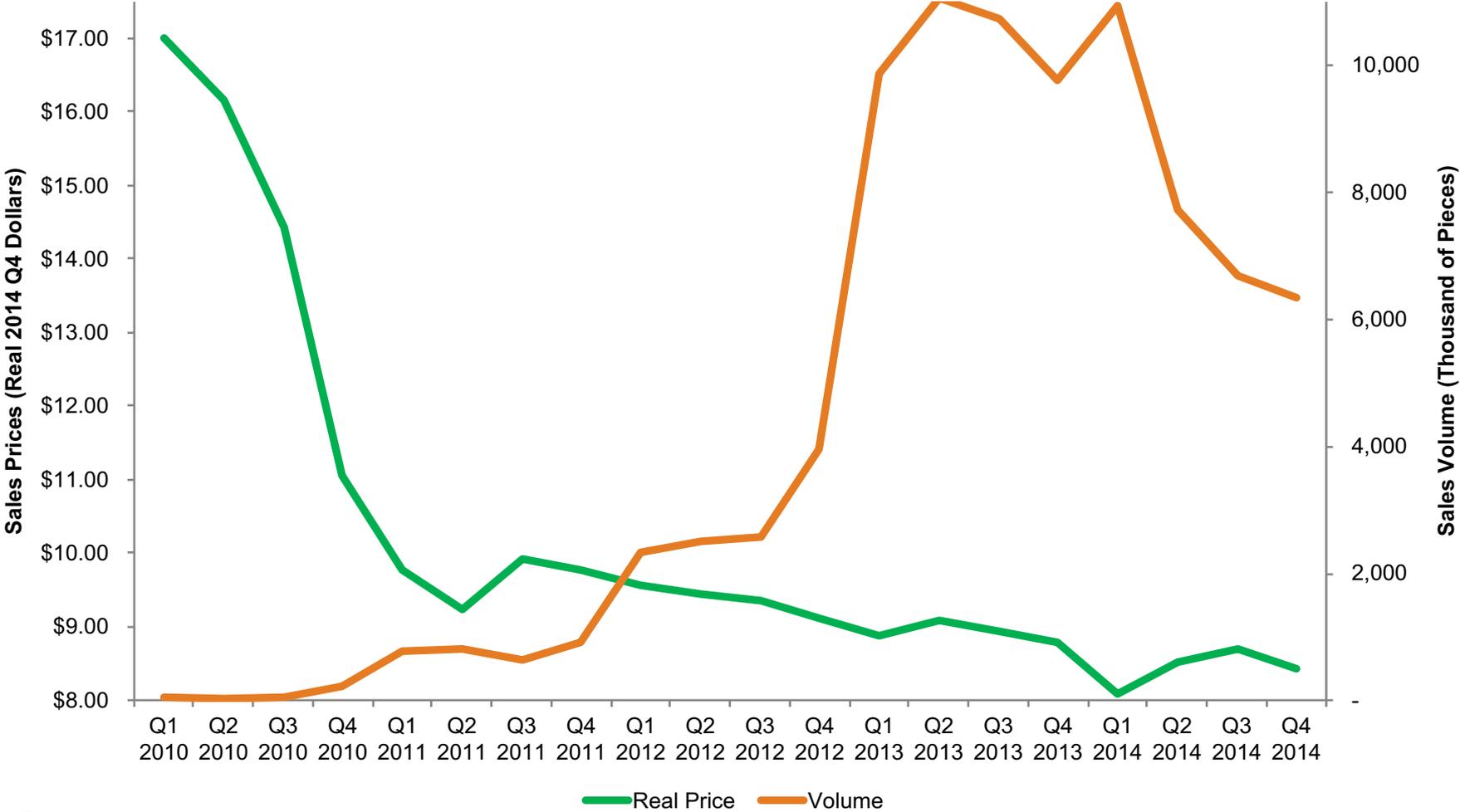


TUS-CPS Prevalence & Consumption  
Pesko, et al., 2016



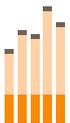
# Disposable ENDS

## Sales Volume and Price, US 2010 - 2014

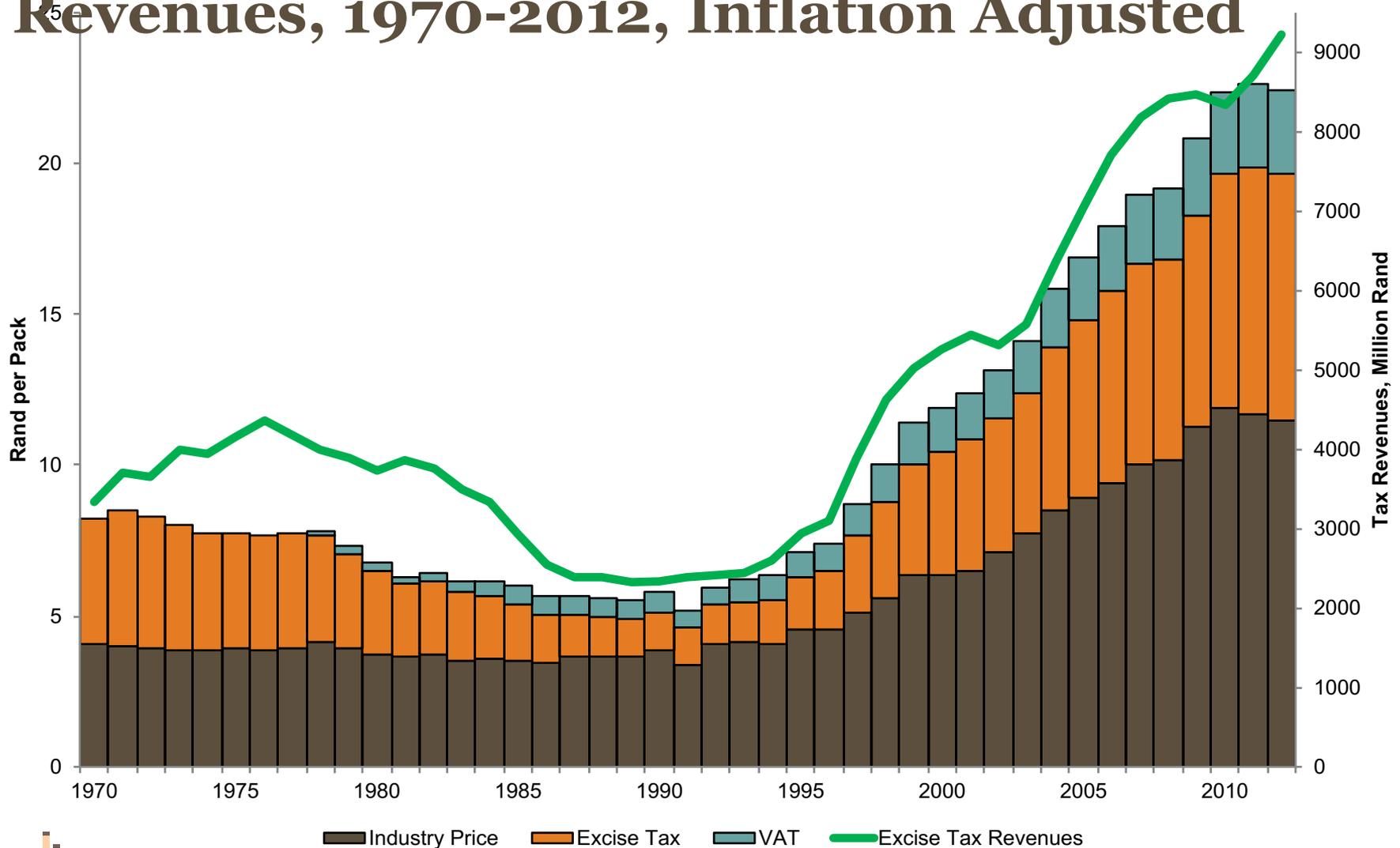


# Prices and Tobacco Use

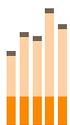
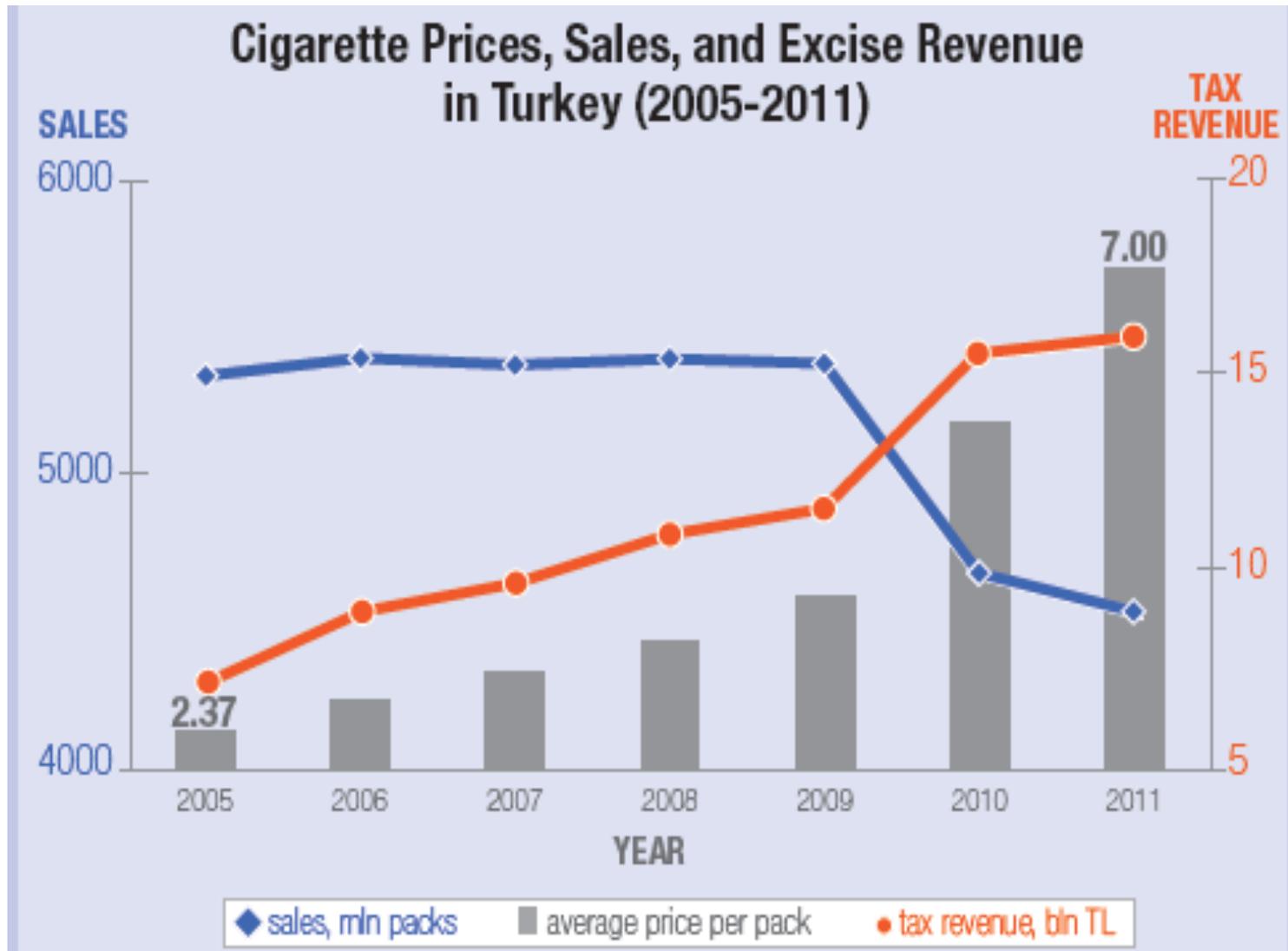
- Similar evidence for variety of other tobacco products and for electronic nicotine delivery systems
  - Generally see evidence of substitution between similar products (e.g. cigarettes, little cigars, roll-your-own)
  - Some evidence of complementarity between combustibles and non-combustibles



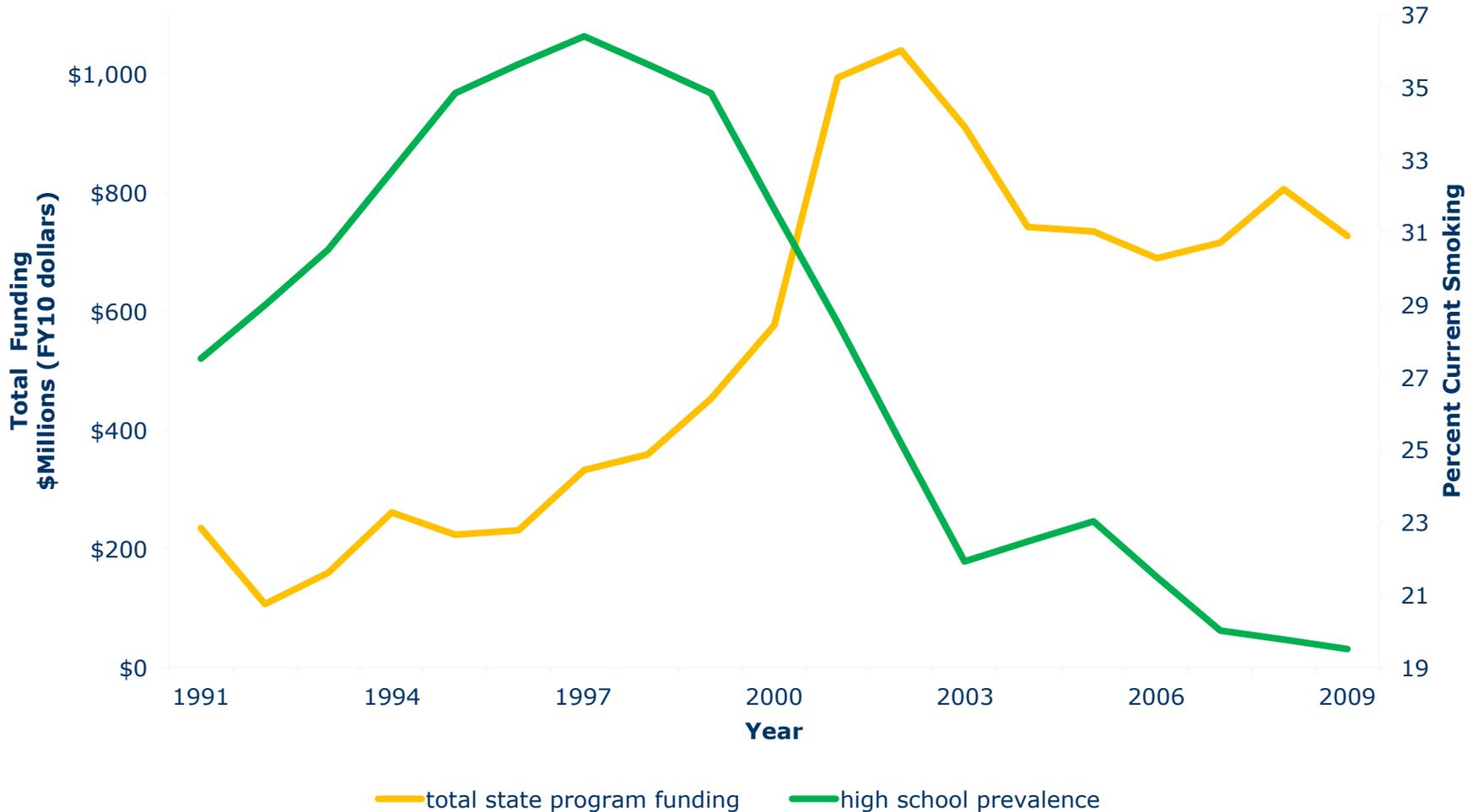
# South Africa - Taxes, Prices, and Tax Revenues, 1970-2012, Inflation Adjusted



# Turkey

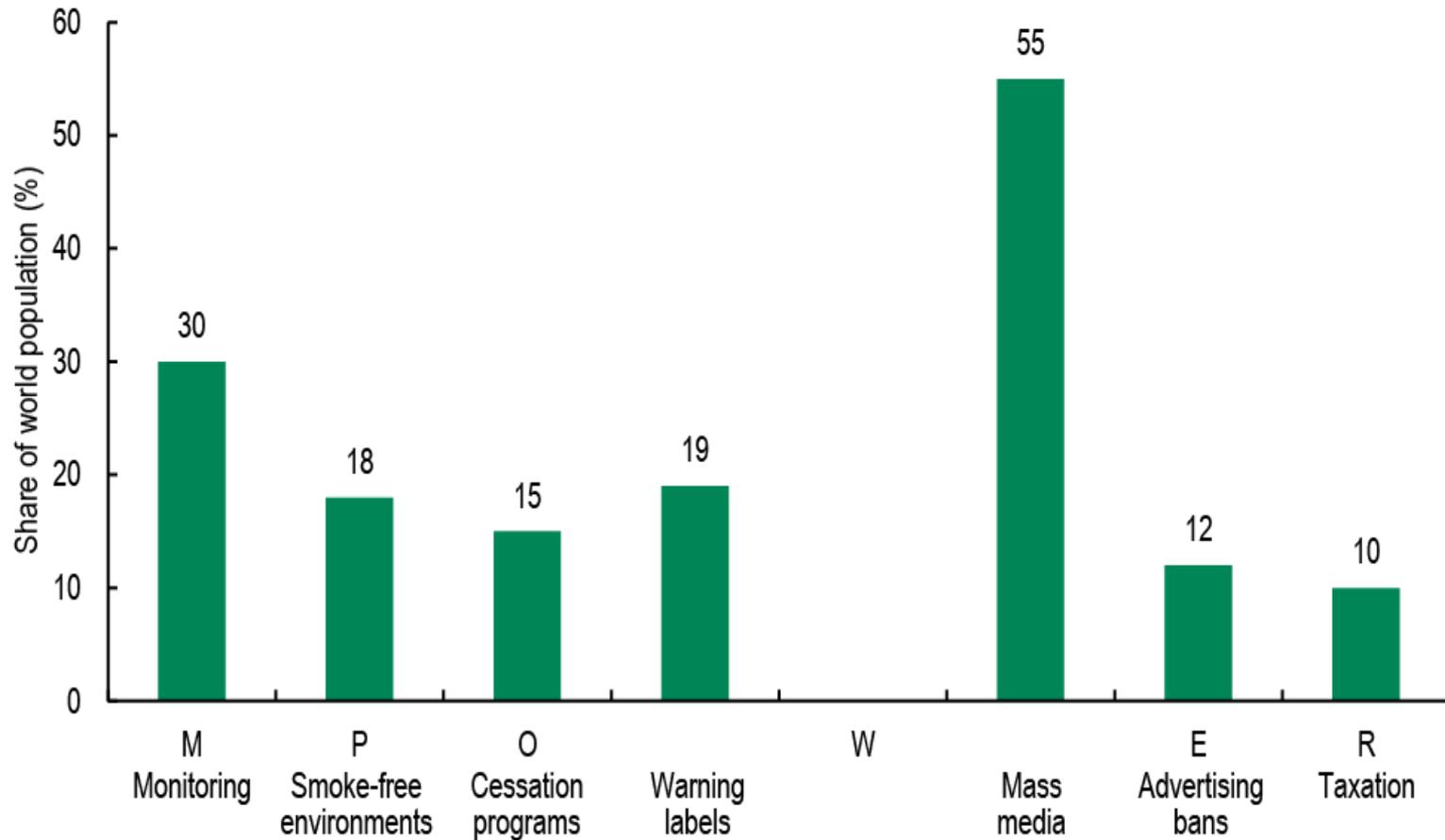


# State Tobacco Control Program Funding and Youth Smoking Prevalence, United States, 1991-2009

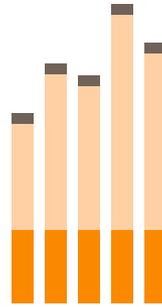


Source: ImpacTeen Project, UIC; YRBS

# Share of the World Population Covered by Selected Tobacco Control Policies, 2014

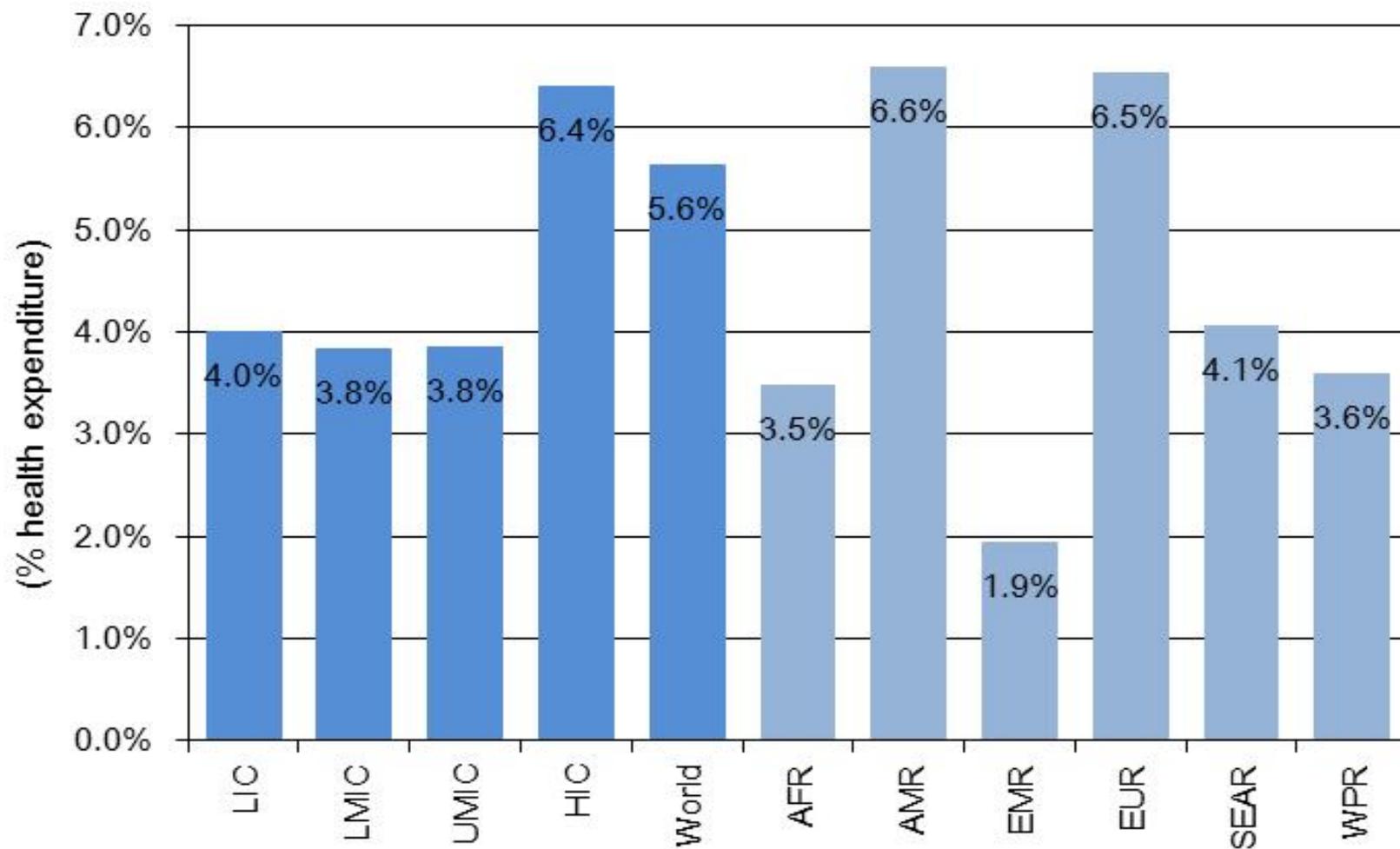


*Note:* The tobacco control policies depicted here correspond to the highest level of achievement at the national level, for the definitions of these highest categories, refer to the WHO Report on the Global Tobacco Epidemic 2015: Raising Taxes on Tobacco. *Source:* World Health Organization. 2015



# Economic Impact of Tobacco Use

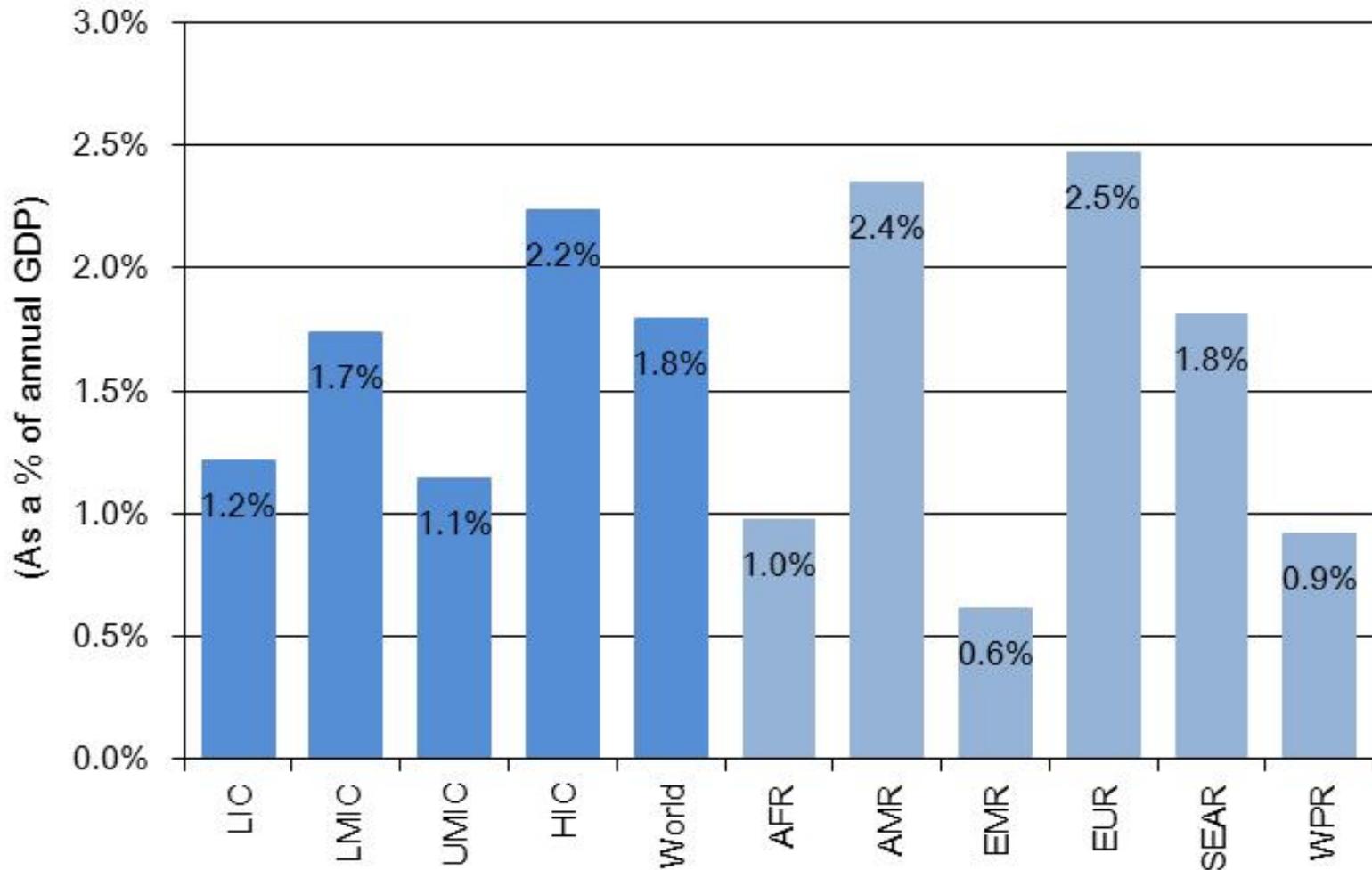
# Smoking-Attributable Spending as Share of Total Health Expenditures, 2012, by Income Group and WHO Region



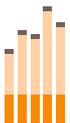
Source: Goodchild, et al., forthcoming



# Economic Costs of Smoking-Attributable Diseases as Share of GDP, 2012, by Income Group and WHO Region



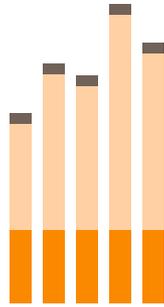
Source: Goodchild, et al., forthcoming



# Economic Costs of Tobacco

- Canada doing better than much of the world
  - Tobacco-attributable health care costs about 3.1% of total health expenditures
  - Economic costs of tobacco about 0.94% of GDP

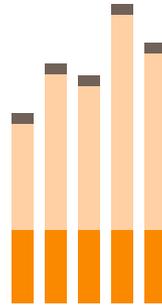




# **Economic Impact of Tobacco Control**

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## **Dispelling the Myths**



# Oppositional Arguments

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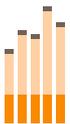
# Impact on Jobs, Business

# Impact on Jobs

March 9, 2009 – Vanguard, AllAfrica.com

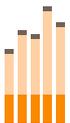
## **Nigeria Anti-Tobacco Bill – 400,000 Jobs on the Line**

- **“if passed into law, The National Tobacco Bill which is currently on the floor of the National Assembly will lead to at least 400,000 Nigerians being thrown into the unemployment market.”**
- “This was the view expressed by the Chairman, Senate Committee on Industries, Senator Kamorudeen Adedbu, while speaking with reporters recently in Iselyn, Oyo State, while speaking at the 2008 Farmers Productivity Day Award Ceremony.”



# Tobacco Control & Employment

- Tobacco control will lead to decreased consumption of tobacco products
  - Small loss of jobs in tobacco sector
- Money not spent on tobacco products will be spent on other goods and services
  - Gains in jobs in other sectors
- Increase in tobacco tax revenues will be spent by government
  - Additional job gains in other sectors
- Net increase in jobs in most countries



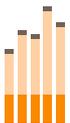
# Tobacco Control & Business

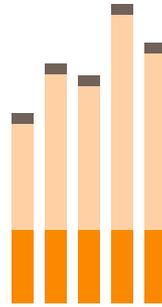
## Impact of smoke-free policies on hospitality sector

- No or small positive impact of smoke-free policies on bar and restaurant business (IARC Handbook 13)

## Impact of tobacco control policies on convenience stores (Huang and Chaloupka 2012)

- More business activity where cigarette taxes are higher
- No impact of smoke-free policies
- Overshifting and replacement purchase





# Oppositional Arguments

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## Impact on the Poor

# Impact on the Poor

July 23, 2010 – San Francisco Examiner

- “Democrats are relying more heavily in their midterm 2010 election message that Republicans care nothing about the poor. Conveniently absent from this analysis is Republican opposition to President Barack Obama’s cigarette tax increase..... **While higher cigarette taxes do discourage smoking, they are highly regressive.** Analyzing a slightly less severe proposal in 2007, the Tax Foundation noted that **‘no other tax hurts the poor more than the cigarette tax.’**” Peyton R. Miller, special to the Examiner.

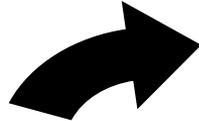


# Tobacco & Poverty

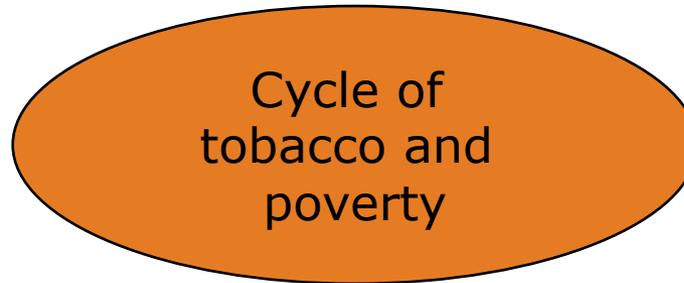
Family falls into poverty

**Foregone income 3:**

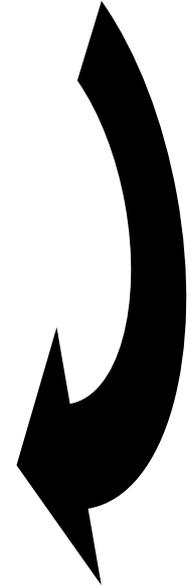
Breadwinner dies prematurely



Poor men smoke



Cycle of tobacco and poverty

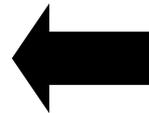


**Foregone income 2:**

Treatment cost & Lost working days & income



**Breadwinner gets sick due to tobacco use**



**Foregone income 1:**

More money spent on tobacco:

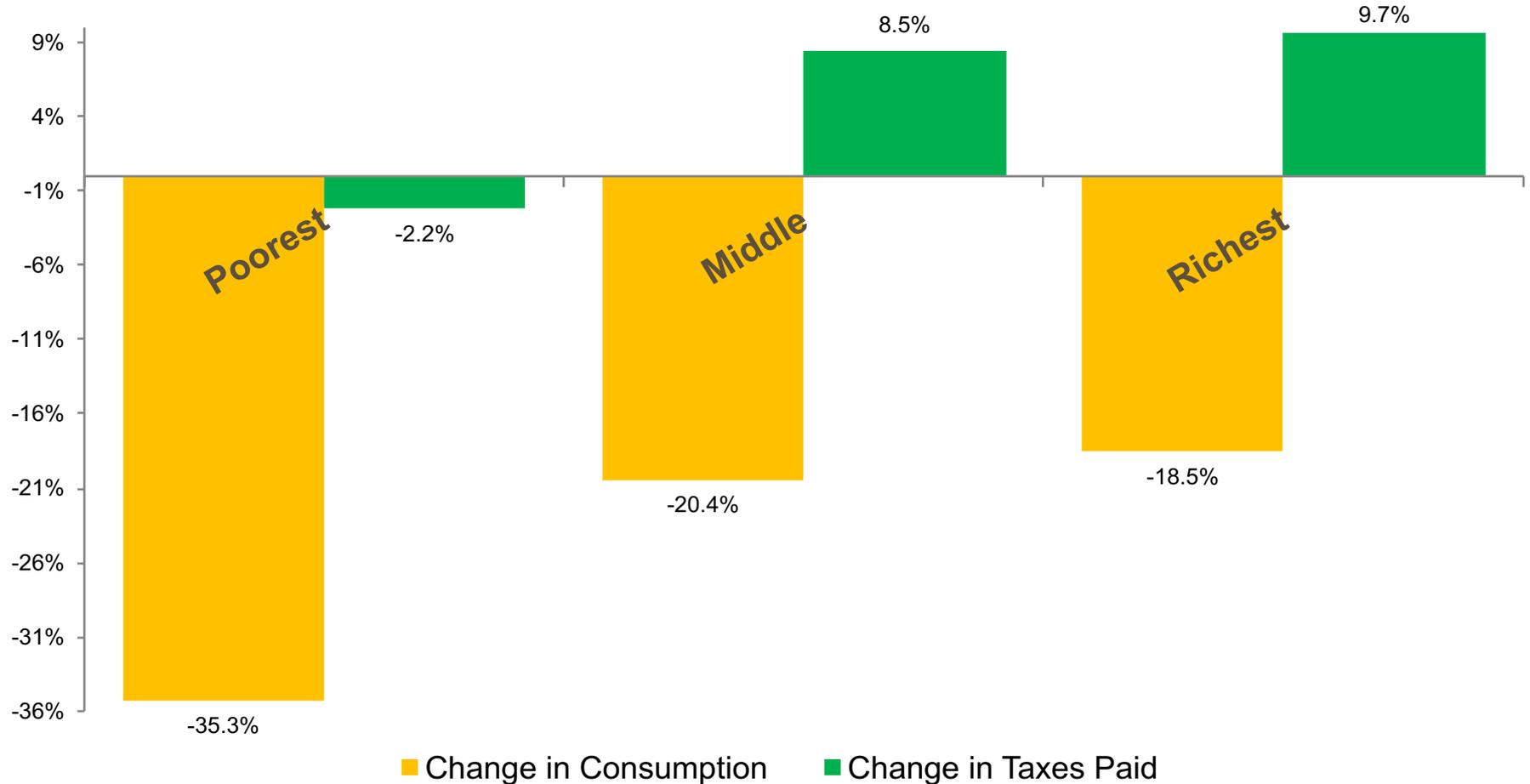
Less money spent on Education, nutrition etc

***High opportunity cost***



Source: Yurekli, 2007

# Who Pays & Who Benefits Turkey - 25% Tax Increase



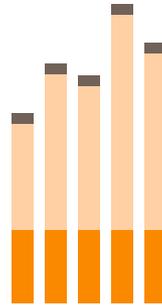
Source: Adapted from Önder & Yürekli, 2014

# Impact of Tobacco Taxes on the Poor

Also depends on use of new tax revenues:

- Greater public support for tobacco tax increases when revenues are used for tobacco control and/or other health programs
- Net financial impact on low income households can be positive when taxes are used to support programs targeting the poor
- Concerns about regressivity offset by use of revenues for programs directed to poor





# Oppositional Arguments

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# Illicit Trade

# Impact on Illicit Trade

February 11, 2014 – Postmedia News

- **Federal budget unveils major tax hike for smokers that will see jump in cost of cigarettes, tobacco and cigars**

Gregory Thomas, federal director of the Canadian Taxpayers Federation, said the government could have a difficult time trying to collect the more than \$3 billion it's expecting in additional revenues over the next five years.

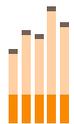
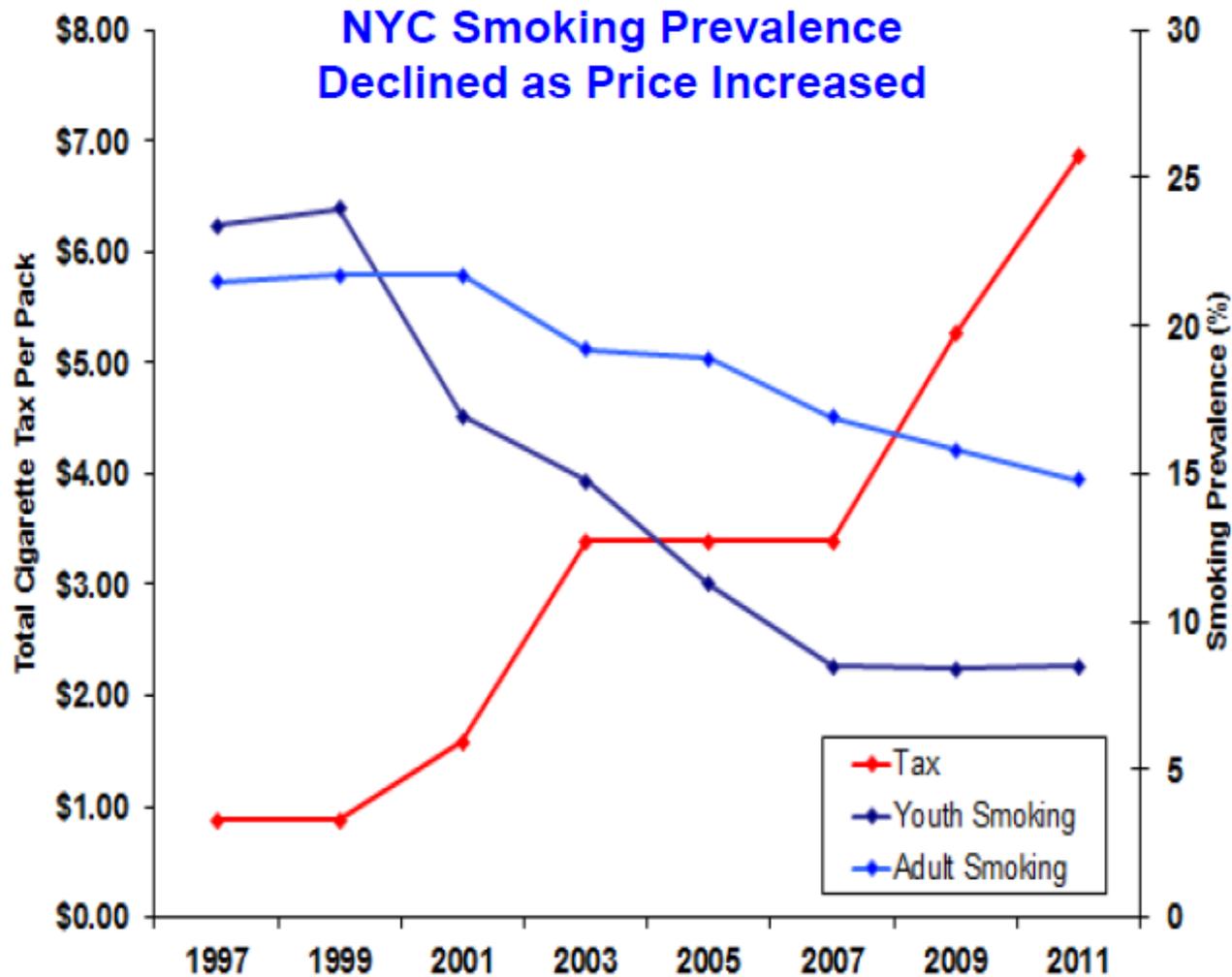
**The tobacco tax hike will dramatically increase the amount of contraband tobacco in Canada**, he said, yet the government is only investing a relatively small amount in combatting the illegal tobacco market.

“Let’s see them try and collect it [the expected additional revenue]. They’re demanding a whole lot of conscience on the part of smokers,” Thomas said.

**“We all know that tobacco smuggling activity on our borders is a growing problem.”**



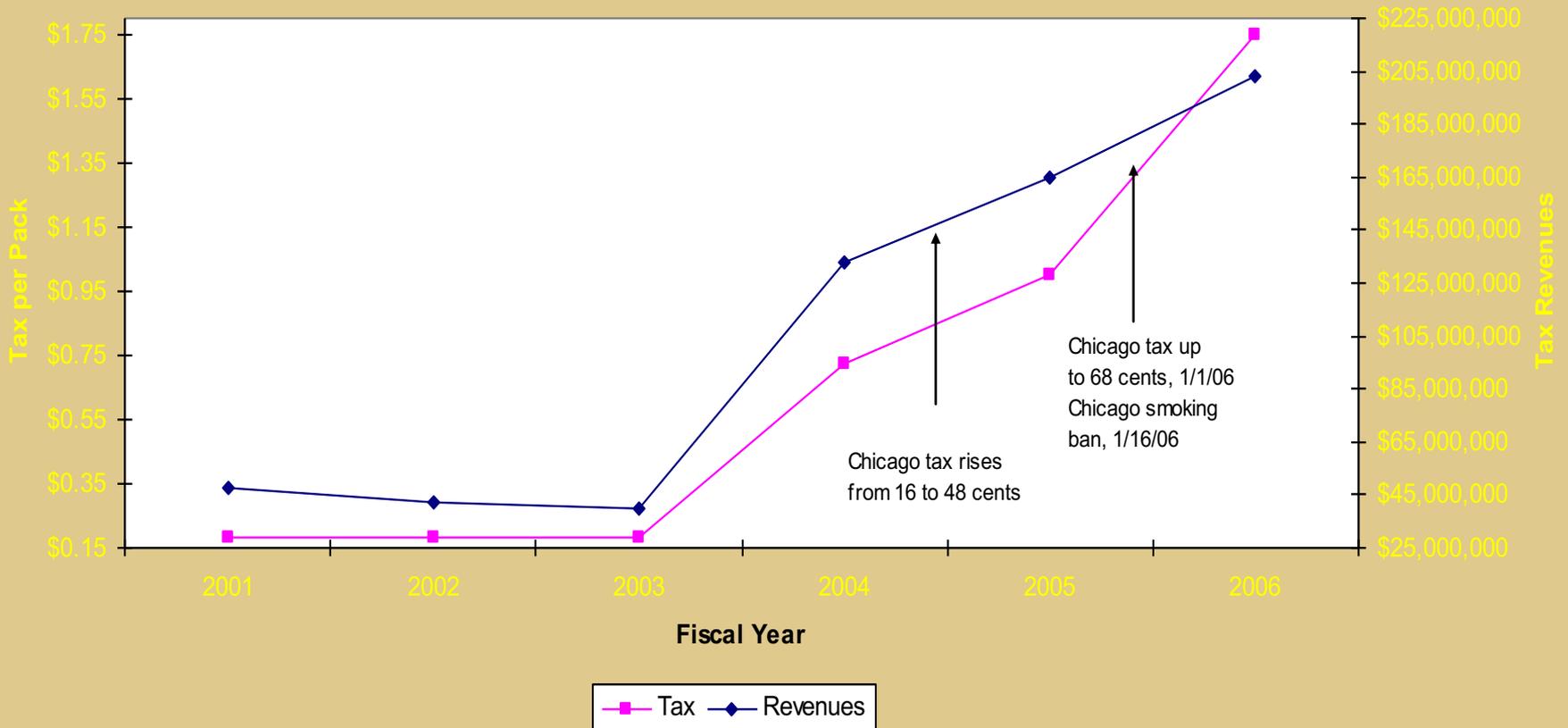
# Tax Avoidance & Evasion Do NOT Eliminate Health Impact of Higher Taxes



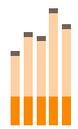
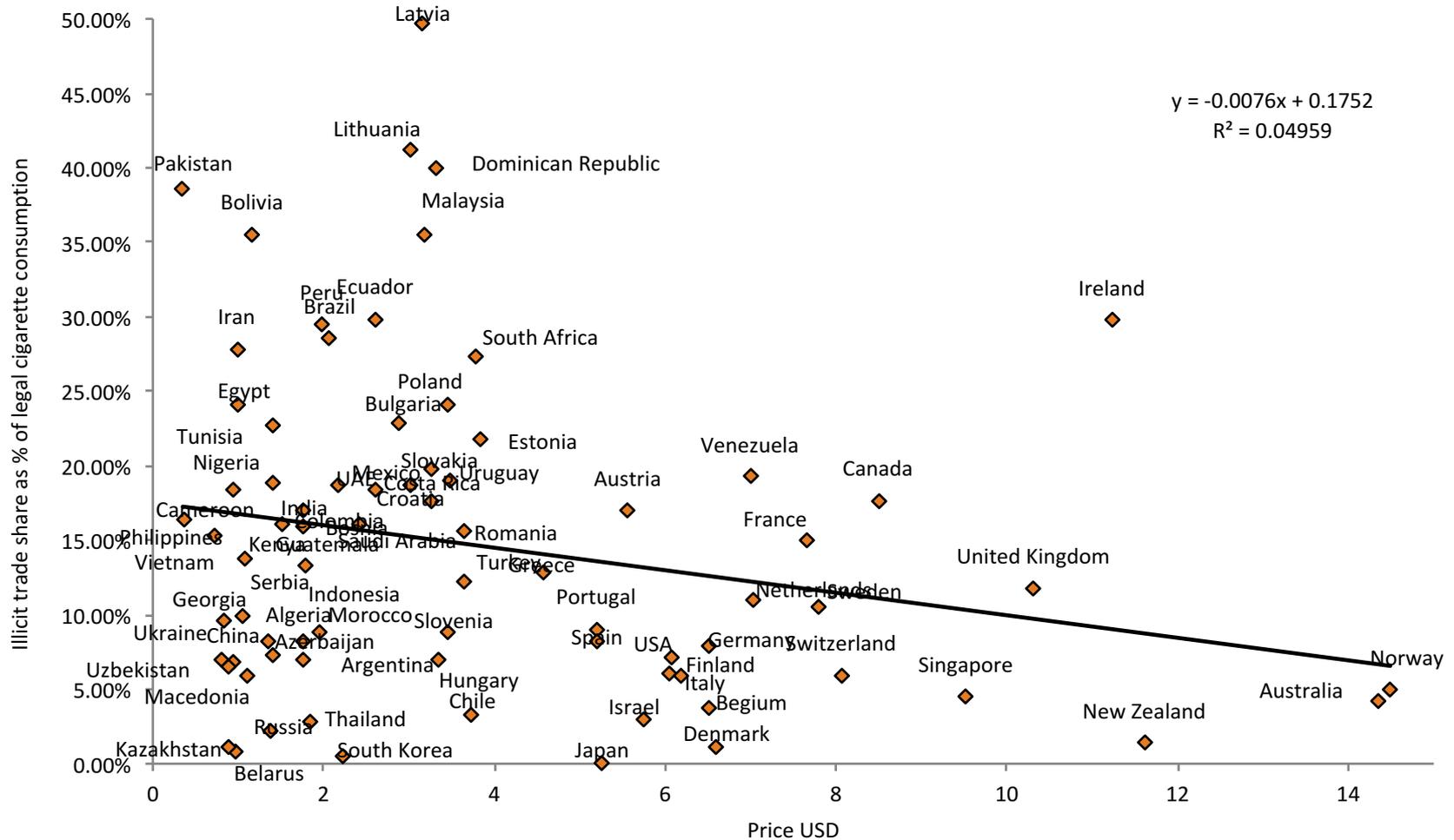
# Tax Avoidance & Evasion

## Do NOT Eliminate Revenue Impact of Higher Taxes

### Cook County Cigarette Tax and Tax Revenues - FY01-FY06

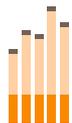


# Illicit Cigarette Market Share & Cigarette Prices, 2012

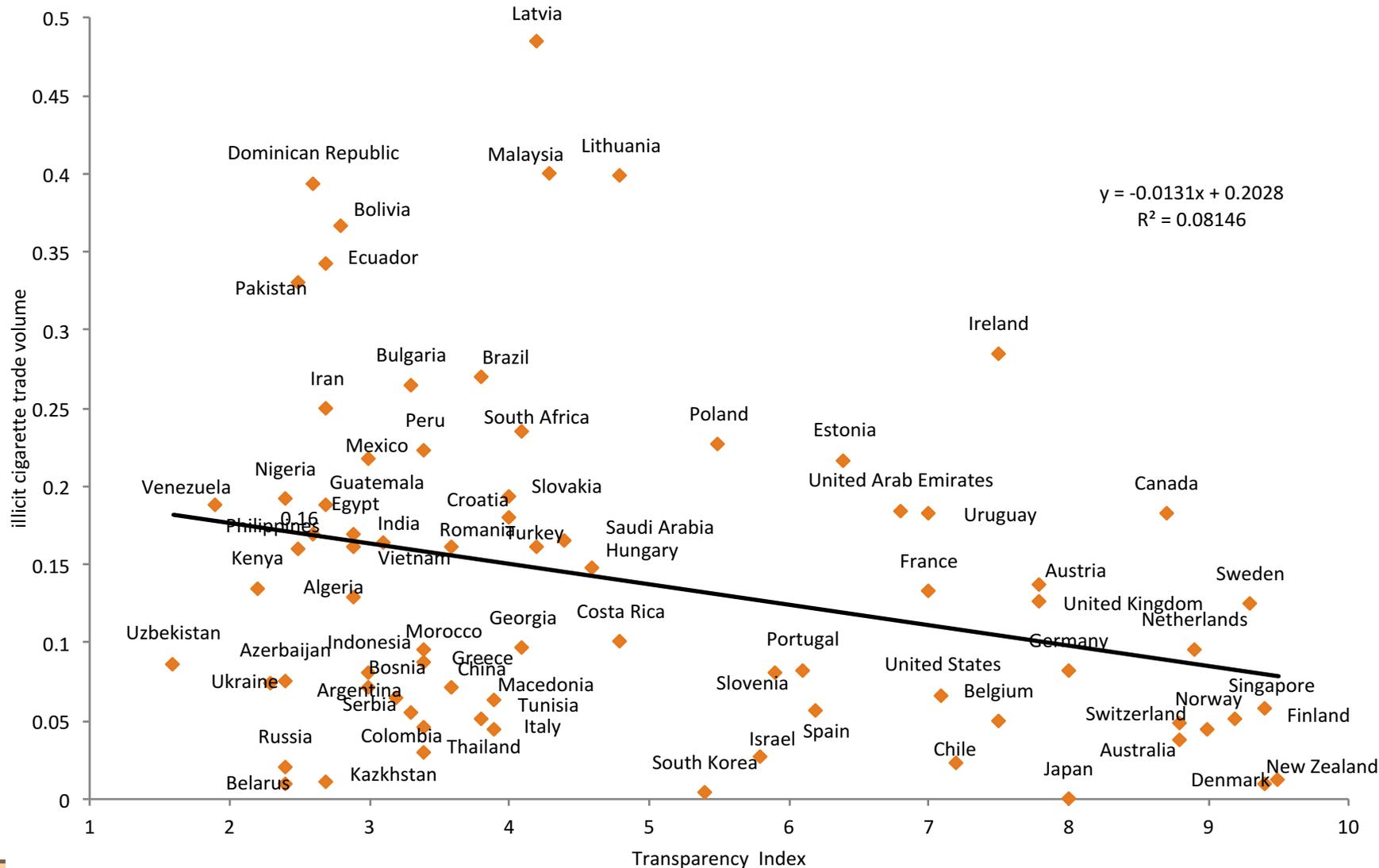


# Determinants of Illicit Tobacco

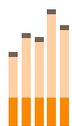
- Corruption
- Weak tax administration
- Poor enforcement
- Presence of informal distribution networks
- Presence of criminal networks
- Access to cheaper sources



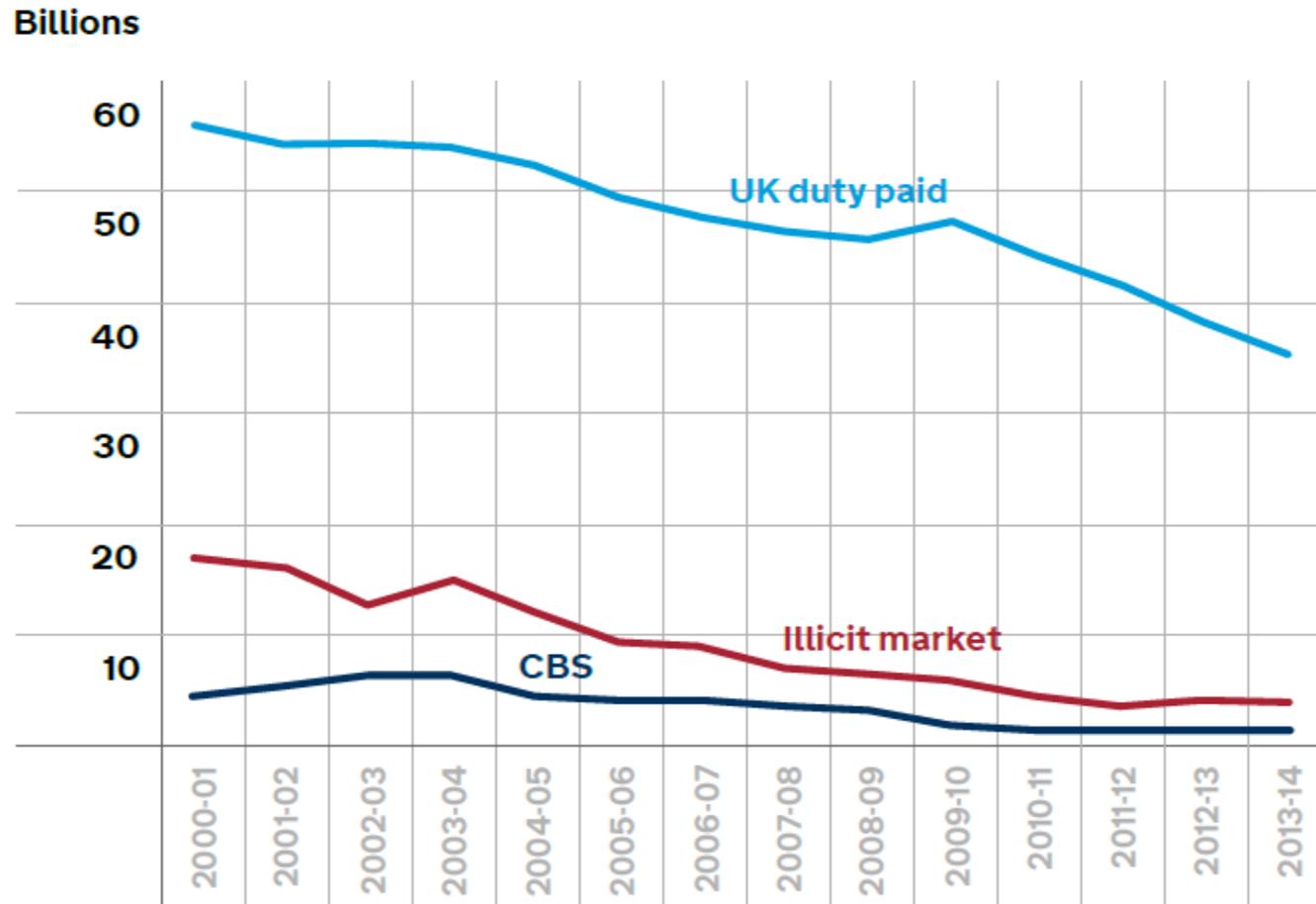
# Smuggling and Corruption, 2011



Sources: Euromonitor, Transparency International



# Figure 12 – Estimated Volumes of Cigarettes Consumed in the U.K. – Duty paid, illicit, and cross-border shopping, 2000-01 – 2013-14

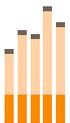


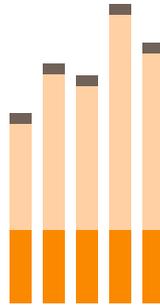
Source: HM Revenue & Customs, 2014



# Combating Illicit Tobacco Trade

- Illicit trade protocol to the WHO FCTC
  - Adopted November 2012; currently in process of being signed/ratified; provisions calling for:
    - Strong tax administration
      - Prominent, high-tech tax stamps and other pack markings
      - Licensing of manufacturers, exporters, distributors, retailers
      - Export bonds
      - Unique identification codes on packages
    - Better enforcement
      - Increased resources
      - Focus on large scale smuggling
    - Swift, severe penalties
    - Multilateral/intersectoral cooperation

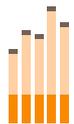
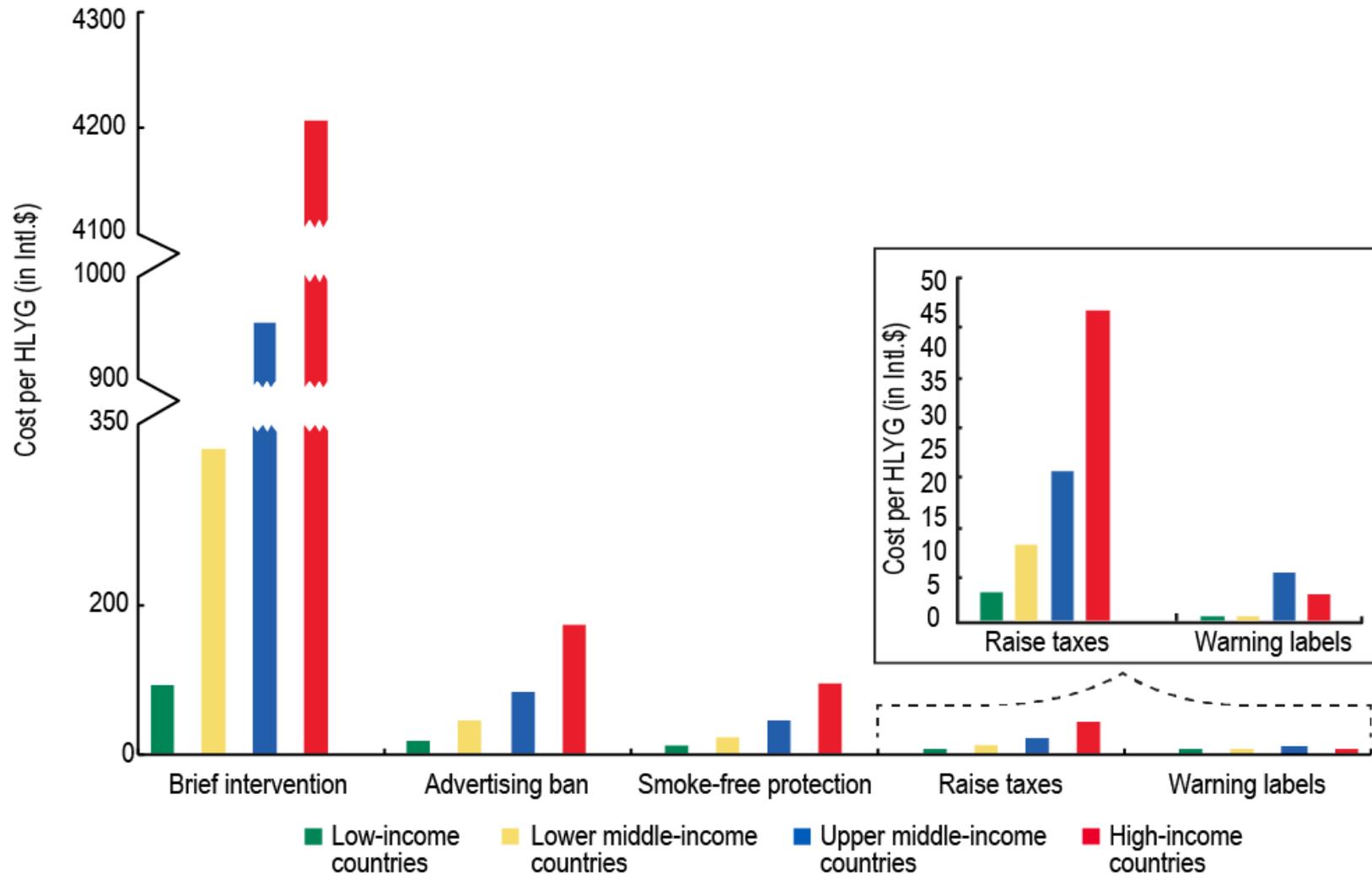


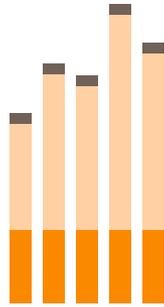


# Cost-Effectiveness of Tobacco Control

# Key Tobacco Control Policies

## Cost-Effectiveness

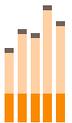




# ENDS Taxation

# Rationale for ENDS Taxation

- Improve Public Health
  - Encourage switching from combusted to potentially less harmful products
  - Prevent youth initiation
- Raise Revenue
  - Replacement revenue source as revenues from cigarettes and other tobacco products fall



# ENDS Taxation in the US

- Minnesota, North Carolina, Louisiana and DC currently tax ENDS
  - 95% of wholesale price in MN; 67% in DC; 40% in PA
  - 5 cents per ml in NC, LA; 7.5 cents/ml in WV; 20 cents/ml in KS
- Local ENDS taxes:
  - Petersburg AK (45% of wholesale price); Mat Su Borough, AK (55% of wholesale price)
  - Chicago (80 cents per unit, plus 55 cents per ML)
- Many others have proposed or are considering



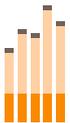
# ENDS Taxation Globally

- Togo: 45% of retail price
- Republic of Korea: 1799 won/ml (US\$1.65/ml)
- Italy:
  - Mid-2013: 58.5% of retail price
  - Late-2014: 50% of retail price
  - Early 2015: €3.73 per 10 mls
  - May 2015: eliminated
- Portugal: €0.60/ml
- Others have proposed or are considering
  - European Union proposal to tax like cigarettes



# Options for ENDS Taxation

- Low tax relative to cigarette, OTP taxes
  - Little impact in reducing use, uptake
  - Encourages dual use
  - Maximize incentives to switch from combustibles to ENDS
  - Minimal new revenue
- ENDS tax equivalent to cigarette tax
  - Significant impact on use, uptake
  - Little incentive to switch from combustibles to ENDS
  - Modest new revenue



# Options for ENDS Taxation

- Significant tax on ENDS coupled with increased taxes on cigarettes and other combustible tobacco products
  - Maintain or increase relative price of combustibles
  - Maximize switching while discouraging initiation and dual use
  - Generates significant new revenues
  - Relatively low cost, legal substitute could help address concerns about illicit trade



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PERSPECTIVE

**Differential Taxes for Differential Risks — Toward Reduced Harm from Nicotine-Yielding Products**

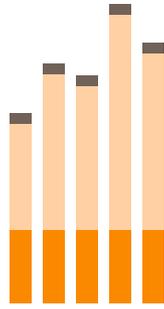
Frank J. Chaloupka, Ph.D., David Sweanor, J.D., and Kenneth E. Warner, Ph.D.  
N Engl J Med 2015; 373:594-597 | August 13, 2015 | DOI: 10.1056/NEJMp1505710



**Circulation**  
JOURNAL OF THE AMERICAN HEART ASSOCIATION

**Electronic Cigarettes: A Policy Statement From the American Heart Association**  
Aruni Bhatnagar, Laurie P. Whitsel, Kurt M. Ribisl, Chris Bullen, Frank Chaloupka, Mariann R. Piano, Rose Marie Robertson, Timothy McAuley, David Goff and Neal Benowitz  
on behalf of the American Heart Association Advocacy Coordinating Committee, Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Quality of Care and Outcomes Research

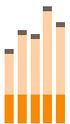
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# Summary

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- Large, regular tobacco tax increases are single a key component of an Endgame strategy
  - And generate considerable new revenue
- Tobacco Endgame is good for the economy
  - Economic arguments continue to be significant obstacle
    - False or greatly overstated
  - Tobacco control is highly cost-effective
- Differential taxation could be a key part of Endgame strategy



**For more information:**

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